

REMARKS

Claims 9-13 and 16-34 are pending in the present application.

Applicants wish to thank Examiner Stein for the helpful and courteous discussion with their undersigned Representative on May 19, 2004. During the discussion, various amendments and arguments were discussed to clarify the claimed invention and to distinguish the claimed invention from Kleinschmit et al. The content of this discussion is expanded upon and is reflected in the following remarks. Applicants also wish to thank Examiner Stein for the indication that Claims 14, 15, and 21-30 are free of the art of record (April 9, 2004 Office Action, page 3, paragraphs 5-6). Reconsideration of the outstanding rejections is requested in view of the following remarks.

The rejections of Claims 9, 13, and 17 under 35 U.S.C. §102(b) and of Claims 10-12 and 16 under 35 U.S.C. §103(a), each over Kleinschmit et al., are traversed.

The present invention provides, in part, an article comprising a layer and a substrate, wherein the layer is obtained by thermal treatment of an aqueous dispersion that has been applied to a substrate, the dispersion containing a silicon/titanium mixed oxide powder prepared by flame hydrolysis and the titanium dioxide content of the powder ranges from 2 to 20 wt.% (see Claim 9).

In contrast, Kleinschmit et al only discloses mixed oxide powders *in a free or bulk form* that are useful for thermal insulation. As stated above, the present invention relates to an *aqueous dispersion* that is applied to a substrate. Accordingly, the claimed invention is distinct from the art of record as the physical state of matter is different in the disclosure of Kleinschmit et al and the present invention.

The standard for determining anticipation requires that the reference “must teach every element of the claim” (MPEP §2131). As stated above, Kleinschmit et al fails to disclose an *aqueous dispersion* containing a silicon/titanium mixed oxide powder prepared by flame hydrolysis and the titanium dioxide content of the powder ranges from 2 to 20 wt.%. Therefore, Kleinschmit et al fail to meet the aforementioned standard and, as such, fails to anticipate the presently claimed invention.

Not only do Kleinschmit et al fail to meet the standard for determining anticipation as defined in MPEP §2131, this reference can not even support a *prima facie* case of obviousness. MPEP §2142 states: “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation... to modify the reference... Second, there must be a reasonable expectation of success. Finally, the prior art reference... must teach or suggest all the claim limitations.”

In the present case, as stated above, Kleinschmit et al do not disclose or suggest an aqueous dispersion containing a silicon/titanium mixed oxide powder prepared by flame hydrolysis and the titanium dioxide content of the powder ranges from 2 to 20 wt.%. This is important because the thermal insulation disclosed by Kleinschmit et al does not form a layer on a substrate as defined by the present application in which the layer forms a tight connection with the substrate after thermal treatment. As such, the thermal insulation material fails to provide a layer on a substrate that has high mechanical stability and is free from cracks. Therefore, in addition to the failure to disclose or suggest modifying the thermal insulation to be an aqueous dispersion, Kleinschmit et al does not provide a reasonable expectation of the advantageous results demonstrated in the Examples of the present specification.

Furthermore, as conceded by the Examiner, Kleinschmit et al also fail to disclose or suggest the claimed thickness of the silicon dioxide mixed oxide. In the absence of any specific suggestion or motivation by Kleinschmit et al to modify their disclosure to arrive at these missing limitations this rejection must fall.

For all the foregoing reasons, Applicants respectfully request withdrawal of the rejections over Kleinschmit et al.

During the discussion with Applicants' undersigned Representative, the Examiner indicated that the language in the claims is ambiguous with respect to the nature of the interaction between the layer and the substrate, as well as whether the substrate itself is a limitation in the claim. In addition, the Examiner noted that Claim 14 is the same as Claim 28. Accordingly, in order to clarify the claimed invention, applicants have amended the claims to specify that what is claimed is article comprising a layer and a substrate. To assist in the Example 5 describes the sintering of a layer applied by dip coating using a borosilicate glass as a substrate. In view of the foregoing, it is request that the amendment to the claims be entered.

Applicants remind that Examiner that MPEP §821.04 states:

...if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim will be rejoined.

Applicants respectfully submit that should the claims that correspond to the elected group (Claims 9-13, 16, 17 and 21-30) be found allowable, non-elected process claims (Claims 18-20 and 31-33) that depend from the elected composition claims should be rejoined. Applicants wish to thank the Examiner for the indication to their undersigned

Representative that these claims would be rejoined (see paper number 14, page 2, paragraph 3).

Finally, regarding submission of a certified copy of the priority application DE 101 63 939.2, Applicants will submit the same prior to payment of the Issue Fee.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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